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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,521	12/03/2003	Nobuyuki Shirie	8012-1218	3762

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EXAMINER	
NGUYEN, THONG Q	
ART UNIT	PAPER NUMBER
2872	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,521	SHIRIE, NOBUYUKI	
	Examiner	Art Unit	
	Thong Q Nguyen	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment of 9/23/2004. It is noted that in the mentioned amendment, applicant has made amendments to the specification, the drawings and the claims.

2. Regarding to the claims, it is noted that applicant has made amendments to claims 12-13 and added a new set of claims, i.e., claims 14-20, into the application. A review of the device as recited in the newly-added claims has resulted that the device of the newly-added claims has a similar scope as that of the original claims 1-13, thus, all pending claims 1-20 are examined in this Office action.

Drawings

3. The drawings contain two sheets of corrected figures 6 and 7 were received on 9/23/2004. These drawings are approved by the Examiner.

Specification

4. The lengthy specification which is amended by the amendment has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification has not positively provided support for the

features recited in the newly-added claims 14-15 and 19-20. In particular, the specification has not positively provided support for the following features:

First, the feature related to the shape of the stopper, i.e. a frustocone, as recited in claim 14;

Second, the feature related to the generally planar second portion surround the first portion as recited in claim 15;

Third, the feature related to the diameter of the frustocone shape of the stopper facing the object (or the opposite side of the object) side as recited in each of claims 19-20.

It is noted that each of the features mentioned above is found in the drawings, in particular, in figures 3-5; however, the specification has not positively provided a written description for each of the mentioned features.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 6, 14-15, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al (U.S. Patent No. 5,568,322) in view of Kohmoto et al (U.S. Patent No. 5,276,552, of record).

Azami et al disclose a lens system having a lens barrel for supporting a plurality of lens elements and a light-intercepting element. The system as described in columns 1-3 and shown in figure 2 comprises a lens barrel (11) supporting lens elements (L1-L3) and a light intercepting element (13) which is disposed between

the lens element (L2) and (L3). The light-intercepting element as shown is in contact with the lens surface of the lens element (L2) and oriented in a direction which is inclined to the optical axis of the lens system. The inner periphery of the light-intercepting element defines a circular configuration for allowing light passing therethrough. See column 1, last three lines through column 2, first three lines. The only feature missing from the light-intercepting element provided by Azami et al is that they do not clearly state that the inner periphery has a side surface of a circular truncated cone as claimed. However, the use of a light-intercepting element wherein the inner periphery of the light-intercepting element is made as a side surface having a truncated cone is known to one skilled in the art as can be seen in the system provided by Kohmoto et al.

In particular, Kohmoto et al discloses a photographic lens unit having a lens barrel supporting a plurality of lens elements and a light intercepting mask for preventing the ghost or flare occurred due to the refection of light on the lens surface(s). See column 1. The system as described in columns 3-5 and shown in figures 1-2 comprises a lens frame (28) having a plurality of stepped portions for supporting a plurality of lens elements (L21-L23). A light intercepting mask (30) having an inner periphery defined an opening to pass incident light upon the lens elements wherein the inner periphery of the mask has a conical configuration and inclined with the optical axis of the system. Regarding to the spacer recited in claim 6, it is noted that the portion of the lens frame (28) between the lens elements (L21 and L22) acts as a spacer and the light intercepting mask is

formed integrally or separately with the spacer. See column 5. Regarding to the orientation of the diameter of the inner periphery of the light-intercepting element, it is noted that the light-intercepting element provided by Kohmoto et al is oriented to face to the opposite side of the object of the lens system. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens barrel supporting a plurality of lens elements and a light intercepting element as provided by Azami et al by using a light intercepting element having its inner periphery of a truncated cone as suggested by Kohmoto et al for the purpose of increasing the ability of preventing light harmful to the formation of the image quality.

8. Claims 2-5, 8-12 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al in view of Kohmoto et al as applied to claims 1, 6 and 14 above, and further in view of the prior art admitted by the applicant as stated in the present specification in page 1.

The system with the light intercepting mask as provided by Azami et al and Kohmoto et al does not explicitly state that the mask is made by Mylar by sheet metal stamping with thickness is approximately 0.03 to 0.05 mm as claimed. However, the use of a light intercepting element made by Mylar having such a thickness is known to one skilled in the art as admitted by the applicant in the present specification in page 1. Regarding to the use of phosphor bronze material for making the light intercepting element as recited in present claims, such a recitation is merely that of a preferred embodiment and no criticality has

been disclosed. The support for that conclusion is found in the present claims 4-5 and 10-11 in which claims, the applicant has claimed that the material of the light intercepting element is Mylar. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the light intercepting mask provided by Azami et al and Kohmoto et al by using Mylar material as suggested by the prior art or other suitable material available in the art/market including the bronze material for making the light intercepting mask to meet a particular design/application.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Azami et al in view of Kohmoto et al as applied to claim 14 above with or without , and further in view of Edwards (U.S. Patent No. 5,121,251).

While the combined product having a light intercepting element provided by Azami et al and Kohmoto et al does not disclosed that the small diameter of the inner periphery facing the object side; however, such a feature is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present claim 20 which recites that the small diameter of the inner periphery facing the opposite side of object side. Further, the use of light intercepting element wherein the small diameter is oriented to face the object side or the opposite side of the object side is clearly known to one skilled in the art as can be seen in the system provided by Edwards. See columns 2-3 and figure 1 in which the light intercepting element (28 or 30) has its small diameter faces the opposite side of the object side while the light intercepting

element (32) has its small diameter faces the object side. Thus, it would have been obvious to one skilled in the art at the time the invention was made to arrangement the light intercepting element with respect to the side of the light including the arrangement of the light intercepting element with its small diameter facing the object side as suggested by Edwards for he purpose of obtaining the most result of the light intercepting element in eliminating the light harmful to the formation of image quality.

10. Claims 1, 6-7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al (U.S. Patent No. 4,886,342) In view of Kohmoto et al (of record) .

Kudo et al disclose a lens system having a lens barrel for supporting a plurality of lens elements and a light-intercepting element. The system as described in columns 2-4 and shown in figure 2 comprises a lens barrel system supporting lens elements (1-3) and a light intercepting element (7) which is disposed between the lens element (2) and (3). The light-intercepting element as shown is in contact with a spacer (6) which spacer is disposed between the two lens elements (2 and 3) and the light-intercepting element (7) is disposed between the lens element (2) and the spacer (6). The only feature missing from the light-intercepting element provided by Kudo et al is that they do not clearly state that the inner periphery has a side surface of a circular truncated cone as claimed. However, the use of a light-intercepting element wherein the inner periphery of the light-intercepting element is made as a side surface having a truncated cone

is known to one skilled in the art as can be seen in the system provided by Kohmoto et al.

In particular, Kohmoto et al discloses a photographic lens unit having a lens barrel supporting a plurality of lens elements and a light intercepting mask for preventing the ghost or flare occurred due to the refection of light on the lens surface(s). See column 1. The system as described in columns 3-5 and shown in figures 1-2 comprises a lens frame (28) having a plurality of stepped portions for supporting a plurality of lens elements (L21-L23). A light intercepting mask (30) having an inner periphery defined an opening to pass incident light upon the lens elements wherein the inner periphery of the mask has a conical configuration and inclined with the optical axis of the system. Regarding to the spacer recited in claim 6, it is noted that the portion of the lens frame (28) between the lens elements (L21 and L22) acts as a spacer and the light intercepting mask is formed integrally or separately with the spacer. See column 5. Regarding to the orientation of the diameter of the inner periphery of the light-intercepting element, it is noted that the light-intercepting element provided by Kohmoto et al is oriented to face to the opposite side of the object of the lens system. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the lens barrel supporting a plurality of lens elements and a light intercepting element as provided by Kudo et al by using a light intercepting element having its inner periphery of a truncated cone as suggested by Kohmoto

et al for the purpose of increasing the ability of preventing light harmful to the formation of the image quality.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thong Q Nguyen
Primary Examiner
Art Unit 2872

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